

Healthy Forest Restoration Act Projects **Title IV-Accelerated Information Gathering**

**Project Title: Response of bark beetle populations to wildfire and prescribed burning
Athens, GA (SRS-4505)**

Significance: This research looks at how wildfire and prescribed burning effect bark beetle populations, incidence of root disease and tree mortality. Bark beetles contribute to tree mortality in all southern states and periodic outbreaks can be quite large. Bark beetle outbreaks in both rural and urban settings force landowners to treat infested areas or risk losing large numbers of trees. Understanding how wildfires and prescribed burning affect tree health and bark beetle abundance will help landowners decide how to treat their forests.

Approach: The Southern Forest Insect and Disease Unit SRS-4505 teamed with the Florida Department of Forestry to investigate what factors (fire, disease and bark beetles) contributed to tree mortality following a wildfire in Florida. In a separate study, researchers will investigate bark beetle response and tree mortality following prescribed burns or alternative treatments to burning.



Benefit(s): Expected benefits include:

- Capability to better predict which trees are likely to die following a wildfire.
- A better understanding of how wildfire, bark beetles and diseases interact.
- An understanding of tree mortality after prescribed burns and the role of bark beetles in it.

Outcomes: Forest managers will have a greater understanding of bark beetle and tree response to fire, and will be able to develop better management strategies to reduce bark beetle epidemics following fires. This will result in improved forest health, reduced tree mortality on private and public lands, and lessen the economic losses associated with bark beetle.

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